

RECEIVED
CENTRAL FAX CENTER

DEC 05 2006

Patent
ATTORNEY DOCKET NO.: 19308.0026U1
APPLICATION NO.: 10/725,767
03SKY0028
Page 7 of 14**REMARKS**

This is a full and timely response to the Final Office Action mailed by the U.S. Patent and Trademark Office on October 5, 2006. Upon entry of the foregoing amendments, claims 1 – 5 and 7 - 18 remain pending in the present application. Claims 1, 2, 4, 5, 7, 9, 13, 15 and 16 have been amended. Claim 6 has been canceled. The subject matter of amended claims 1, 2, 4, 5, 7, 9, 13, 15 and 16 is supported in at least figures 1 – 4 and the related detailed description of the Applicant's original specification. Accordingly, no new matter is added to the present application. In light of the foregoing amendments and following remarks, Applicant requests reconsideration of the application and pending claims.

I. Response to 35 U.S.C. § 112 Rejections – Claims 6 - 12**A. Statement of the Rejections**

Claims 6 - 12 presently stand rejected under 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the written description requirement. The statement of the rejection alleges that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the statement of the rejection alleges “the use of an open circuit between the impedance inverter and an input of an amplifier,” is not found in the specification.

B. Discussion of the Rejections

Applicant has canceled claim 6. Consequently, the rejection of claim 6 is rendered moot. Applicant's dependent claims 7 and 8 depend from amended independent claim 5. Claim 5, as amended, no longer recites “an open circuit between the impedance inverter and an input of the amplifier.” Dependent claims 7 and 8 contain subject matter that was illustrated in FIGs. 1 and 4 and described in the specification. Accordingly, the rejection of claims 7 and 8 under 35 U.S.C. § 112, first paragraph, should be withdrawn.

Patent
ATTORNEY DOCKET NO.: 19308.0026U1
APPLICATION NO.: 10/725,767
03SKY0028
Page 8 of 14

Applicant has amended independent claim 9. Claim 9, as amended, longer recites "an open circuit between the impedance inverter and an input of the amplifier." Claim 9 and claims 10 - 12, which depend either directly or indirectly from claim 9 contain subject matter that was illustrated in FIGs. 1 and 4 and described in the specification. Accordingly, the rejection of claims 9 - 12 under 35 U.S.C. § 112, first paragraph, should be withdrawn.

II. Claim Rejections Under 35 USC § 102– Claims 1 - 5

A. Statement of the Rejection

Claims 1 - 5 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 4,290,036 to Moulding *et al.* (hereafter *Moulding*).

B. Discussion of the Rejection

Applicant respectfully submits that independent claim 1, as amended, is patentable for at least the reason that the cited reference fails to disclose, teach, or suggest each feature in the claimed method for filtering a received signal in a wireless receiver. Applicant further submits that independent claim 5, as amended, is patentable for at least the reason that the cited reference fails to disclose, teach, or suggest each feature in the claimed low-noise filter.

It is well established that "anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 Fed 2d 1540, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983). The test is the same for a process. Anticipation requires identity of the claimed process and a process of the prior art. The claimed process, including each step thereof, must have been described or embodied, either expressly or inherently, in a single reference. *See, e.g., Glaverbel S.A. v. Northlake Mkt'g & Supp., Inc.*, 45 F.3d 1550, 33 USPQ2d 1496 (Fed. Cir. 1995).

Accordingly, the single prior art reference must properly disclose, teach or suggest each element of the claimed invention.

Patent
ATTORNEY DOCKET NO.: 19308.0026U1
APPLICATION NO.: 10/725,767
03SKY0028
Page 9 of 14

1. Claims 1 - 4

Regarding independent claim 1, *Moulding* fails to disclose, teach, or suggest at least Applicants' claimed step of "inverting the impedance of the received signal in the filter chain using an inductance applied at the output of the amplifier, the filter chain arranged such that a feedback loop is located between an output of the variable gain amplifier and the output of the filter chain." Consequently, *Moulding* does not anticipate Applicant's claimed method.

In contrast with Applicant's claimed method, *Moulding* (FIGs. 4-6) apparently discloses filter circuits that apply a simulated inductance in a negative feedback path to an input of amplifier 13. *Moulding* describes the circuit as follows,

FIG. 4 shows a second embodiment of the invention in which the simple voltage amplifier 9 of FIG. 3 has been replaced by a voltage amplifier arrangement comprising the combination of a voltage-controlled current source 10 and a load resistor 12. The input terminal 1 is now connected to the non-inverting input of a differential voltage amplifier 13, the non-inverting output of which is coupled to the port 8 of gyrator 5 and to the output terminal 3. The common point of the non-inverting output of source 10 and the load resistor 12 is connected to the inverting input of amplifier 13. The load resistor 12, i.e. the output of voltage amplifier arrangement 10, 12, is thus connected in series with the signal path from input terminals 1, 2 to the input of amplifier 13, i.e. in series with the input signal path through (inductive) port 8. It will be seen moreover, that the output of arrangement 10, 12 is connected in the series arrangement, effectively constituted by said output, the port 8 and the capacitor 11, in such a sense such that, within this series arrangement, the signal voltage occurring across said output when a signal voltage is applied across terminals 1 and 2 will be in phase with the voltage occurring across port 8. Thus again the voltage amplifier arrangement 10, 12 effectively constitutes a positive inductance in the input signal path to the inductive port 8, i.e. a filter arrangement the response of which corresponds to that of the arrangement of FIG. 1 has again been realised using only one capacitively-loaded gyrator.

Moulding column 5, line 42 – column 6, line 2. (Emphasis added.)

Moulding is entirely silent regarding circuit arrangements wherein a feedback loop is located between an output of the variable gain amplifier and the output of the filter chain. Stated

Patent
ATTORNEY DOCKET NO.: 19308.0026U1
APPLICATION NO.: 10/725,767
03SKY0028
Page 10 of 14

another way, *Moulding* applies the output of the simulated inductance (*i.e.*, the output of amplifier 10) to the inverting or negative input of amplifier 13. Accordingly, *Moulding* cannot anticipate Applicant's claim 1, as amended, for at least the reason that the application of the inductance to an input of the amplifier directly contradicts Applicant's claim 1, which includes a feedback loop located between an output of the variable gain amplifier and the output of the filter chain." Consequently, Applicant submits independent claim 1 is allowable over *Moulding* and respectfully requests that the rejection of claim 1 be withdrawn.

Because independent claim 1 is allowable, dependent claims 2 - 4, which depend directly or indirectly from claim 1, are also allowable. *See In re Fine*, 837, F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Accordingly, Applicant respectfully requests that the rejection of claims 2 - 4 also be withdrawn.

2. Claim 5

Concerning independent claim 5, *Moulding* fails to disclose, teach, or suggest Applicant's claimed low-noise filter for a wireless receiver, which includes at least "an impedance inverter applied at the output of the amplifier and configured to transform inductance applied to a received signal to a capacitance, the impedance inverter having a feedback loop located between an output of the amplifier and an output of the low-noise filter." Consequently, *Moulding* does not anticipate Applicant's claimed low-noise filter.

As shown above, *Moulding* cannot anticipate Applicant's claim 5, as amended, for at least the reason that the application of the inductance to an input of the amplifier directly contradicts Applicant's claim 5, which includes an impedance inverter applied at the output of the amplifier and configured to transform inductance applied to a received signal to a capacitance, the impedance inverter having a feedback loop located between an output of the amplifier and an output of the low-noise filter.

Accordingly, Applicant submits independent claim 5 is allowable over *Moulding* and respectfully requests that the rejection of claim 5 be withdrawn.

Patent
ATTORNEY DOCKET NO.: 19308.0026U1
APPLICATION NO.: 10/725,767
03SKY0028
Page 11 of 14

III. Response to 35 U.S.C. § 103 Rejections – Claims 13 - 18

A. Statement of the Rejections

Claims 13 - 18 presently stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Moulding* in view of U.S. Patent No. 6,906,584 to Moffat *et al.* (hereafter *Moffat*).

B. Discussion of the Rejections

Applicant respectfully submits that independent claims 13 and 15, as amended, are separately patentable for at least the reason that the cited references (alone or in combination) fail to disclose, teach, or suggest each feature in the amended claims.

To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Accordingly, the prior art must properly disclose, teach or suggest each element of the claimed invention.

1. Claims 13 and 14

Concerning Applicant's claims 13 and 14, the proposed combination of *Moulding* and *Moffat* fails to disclose, teach, or suggest a portable transceiver that comprises at least "means for inverting the impedance of the received signal at the output of the amplifying means to transform inductance applied to a received signal to a capacitance, the means for inverting the impedance having a feedback loop that bypasses the amplifying means."

Moffat apparently discloses a switchable gain amplifier that produces a high-pass filter pole. Each of the circuits illustrated in *Moffat* comprise switched elements at the input to amplifiers (22, 24). The application of switching signals and switched elements at the input to an amplifier teaches away from Applicant's portable transceiver, which includes "a feedback loop at the output of the

Patent
ATTORNEY DOCKET NO.: 19308.0026U1
APPLICATION NO.: 10/725,767
03SKY0028
Page 12 of 14

amplifying means.” Stated another way, Applicant’s portable transceiver does not apply an amplified signal at the input to the amplifier.

In contrast with Applicant’s claimed filter, *Moulding* (see FIGs. 4-6) discloses circuit arrangements with reactive elements (inductors or simulated inductors) in a feedback path coupled to an amplifier input. The application of a feedback signal at an input to an amplifier directly contradicts Applicant’s claimed portable transceiver, which recites “a feedback loop that bypasses the amplifying means.” Accordingly, the proposed combination of *Moulding* and *Moffat* would not produce Applicant’s claimed portable transceiver.

Thus, the proposed combination fails to establish a *prima facie* case of obviousness with respect to Applicant’s amended claim 13. Consequently, Applicant submits independent claim 13 is allowable over the proposed combination and respectfully requests that the rejection of claim 13 be withdrawn.

Because independent claim 13 is allowable, dependent claim 14, which depends from claim 13, is also allowable. *See In re Fine, supra*. Accordingly, Applicant respectfully requests that the rejection of claim 14 also be withdrawn.

4. Claims 15 - 18

Regarding Applicant’s claims 15 - 18, the proposed combination of *Moulding* and *Moffat* fails to disclose, teach, or suggest a system for removing direct current (DC) offset from a received signal, comprising at least “a gyrator-generated inductance applied at the output of the variable gain amplifier, the gyrator-generated inductance configured to transform inductance present at the output of the variable gain amplifier to a capacitance, the gyrator-generated inductance and the variable gain amplifier arranged such that the amplified RF signal is not applied at an input of the variable gain amplifier.”

Each of the circuits illustrated in *Moffat* comprise switched elements at the input to amplifiers (22, 24). The application of switching signals and switched elements at the input to an amplifier teaches away from Applicant’s system for removing DC offset from a received signal, which includes “a gyrator-generated inductance applied at the output of the variable gain

Patent
ATTORNEY DOCKET NO.: 19308.0026U1
APPLICATION NO.: 10/725,767
03SKY0028
Page 13 of 14

amplifier, the gyrator-generated inductance configured to transform inductance present at the output of the variable gain amplifier to a capacitance, the gyrator-generated inductance and the variable gain amplifier arranged such that the amplified RF signal is not applied at an input of the variable gain amplifier.”

In contrast with Applicant’s claimed filter, *Moulding* (see FIGs. 4-6) discloses circuit arrangements with reactive elements (inductors or simulated inductors) in a feedback path coupled to an amplifier input. The application of a feedback signal at an input to an amplifier directly contradicts Applicant’s claimed portable transceiver, which recites “a gyrator-generated inductance applied at the output of the variable gain amplifier, the gyrator-generated inductance configured to transform inductance present at the output of the variable gain amplifier to a capacitance, the gyrator-generated inductance and the variable gain amplifier arranged such that the amplified RF signal is not applied at an input of the variable gain amplifier.” Accordingly, the proposed combination of *Moulding* and *Moffat* would not produce Applicant’s claimed system.

Thus, the proposed combination fails to establish a *prima facie* case of obviousness with respect to Applicant’s amended claim 15. Consequently, Applicant submits independent claim 15 is allowable over the proposed combination and respectfully requests that the rejection of claim 15 be withdrawn.

Because independent claim 15 is allowable, dependent claims 16 - 18, which depend either directly or indirectly, from claim 15, are also allowable. *See In re Fine, supra*. Accordingly, Applicant respectfully requests that the rejection of claims 16 - 18 also be withdrawn.

RECEIVED
CENTRAL FAX CENTER

017/017

DEC 05 2006

Patent
ATTORNEY DOCKET NO.: 19308.0026U1
APPLICATION NO.: 10/725,767
03SKY0028
Page 14 of 14

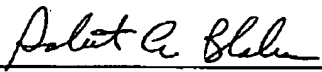
CONCLUSION

In summary, Applicant respectfully requests that all outstanding claim rejections be withdrawn. Applicant respectfully submits that presently pending claims 1 - 5 and 7 - 18 are allowable and the present application is in condition for allowance. Accordingly, a Notice of Allowance is respectfully solicited. Should the Examiner have any comment regarding the Applicant's response or believe that a teleconference would expedite prosecution of the pending claims, Applicant requests that the Examiner telephone Applicant's undersigned attorney.

Respectfully submitted,

Smith Frohwein Tempel Greenlee Blaha LLC
Customer No. 35856

By.


Robert A. Blaha
Registration No. 43,502
(770) 709-0069